

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-2 (canceled)

1 **Claim 3 (currently amended):** ~~The method of any of~~
2 ~~claims 1 and 2,~~ A method for producing a semi-conducting
3 device comprising at least a first layer doped with a
4 doping agent and a second layer deposited on said first
5 doped layer in a single reaction chamber, wherein the
6 deposition steps of said first and second layers are
7 separated by an operation for avoiding the contamination of
8 said second layer by the doping agent, wherein said
9 operation comprises a dosing of the reaction chamber with
10 a vapour or gas comprising water, methanol, isopropanol or
11 another alcohol.

1 **Claim 4 (currently amended):** ~~The method of claims 1~~
2 ~~and 2,~~ A method for producing a semi-conducting device
3 comprising at least a first layer doped with a doping agent
4 and a second layer deposited on said first doped layer in
5 a single reaction chamber, wherein the deposition steps of
6 said first and second layers are separated by an operation
7 for avoiding the contamination of said second layer by the

8 doping agent, wherein said operation comprises a dosing of
9 the reaction chamber with a vapour or gas comprising
10 ammonia, hydrazine or volatile organic amine.

1 **Claim 5 (previously presented):** The method of claim
2 3, wherein said dosing is performed at around 0.05 to 100
3 mbar and between 100 and 350°C for less than 10 minutes.

1 **Claim 6 (currently amended):** The method of claim
2 [[1]] 3, wherein the doped layer is a p-doped layer.

1 **Claim 7 (currently amended):** The method of claim
2 [[1]] 3, wherein the doped layer is a n-doped layer.

1 **Claim 8 (original):** The method of claim 6, wherein
2 said operation is followed by the deposition of a buffer
3 layer on the p-layer.

1 **Claim 9 (currently amended):** The method of claim
2 [[2]] 3, wherein said dosing is followed by a pumping at
3 high vacuum and between 100 and 350°C for less than 5
4 minutes.

Claims 10-13 (canceled)

1 **Claim 14 (currently amended):** The method of claim
2 [[1]] 3, wherein said doping agent on the surface of a
3 substrate is transformed into stable chemical compounds.

1 **Claim 15 (previously presented):** The method of claim
2 4, wherein said dosing is performed at around 0.05 to 100
3 mbar and between 100 and 350°C for less than 10 minutes.

1 **Claim 16 (new):** The method of claim 4, wherein said
2 doping agent comprises trimethylborane.